IN THE CLAIMS

Claim 1. (Currently Amended) A radio communication apparatus for radio-communicating with another radio communication apparatus, comprising:

frame setting means for setting a frame period and a slot as predetermined time units;

receiving slot setting means for setting at least one receiving slot among a plurality of receiving slots received during said frame period;

notification means for notifying information of said receiving slot set by said receiving slot setting means via a beacon signal; and

slot increasing means for adding an additional receiving slot~~increasing said receiving slots~~, when receiving a signal from another radio communication apparatus at said receiving slot,

said additional receiving slot being synchronized with the beacon signal, and

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length of the beacon signal, and slot information which indicates a receiving slot position.

Claim 2. (Currently Amended) A radio communication apparatus for radio-communicating with another radio communication apparatus, comprising:

receiving means for receiving a beacon signal from another radio communication apparatus;

receiving slot detection means for detecting a receiving slot of said other radio communication apparatus from said received beacon signal; and

slot increasing means for increasing ~~said plurality~~ a number of receiving slots at a timing that does not coincide with the receiving slot~~slots~~ detected by said receiving slot detection means,

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length of the beacon signal, and slot information which indicates a receiving slot position.

Claim 3. (Currently Amended) A radio communication apparatus for radio-communicating with another radio communication apparatus, comprising:

frame setting means for setting a frame period and a slot as predetermined time units;

receiving slot setting means for setting a plurality of receiving slots received during said frame period;

notification means for notifying information of said receiving slot set by said receiving slot setting means via a beacon signal; and

slot decreasing means for decreasing said plurality of receiving slots to a minimum of one, when there is no signal reception from another radio communication apparatus at said receiving slot set by said receiving slot setting means,

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length of the beacon signal, and slot information which indicates a receiving slot position.

Claim 4. (Currently Amended) A radio communication apparatus for radio-communicating with another radio communication apparatus, comprising:

receiving means for receiving a beacon signal from another radio communication apparatus;

receiving slot detection means for detecting a receiving slot of said another radio communication apparatus from said received beacon signal; and

transmitting means for transmitting information via a new receiving slot when a change occurs at said receiving slot, after information is transmitted against a receiving slot of said another radio communication apparatus,

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length of the beacon signal, and slot information which indicates a receiving slot position.

Claim 5. (Currently Amended) A radio communication apparatus for radio-communicating with another radio communication apparatus, comprising:

frame setting means for setting a frame period and a slot as predetermined time units;

receiving slot setting means for setting at least one receiving slot among a plurality of receiving slots received during said frame period; and

notification means for notifying information of said receiving slot set by said receiving slot setting means via a beacon signal, wherein

said notification means notifies a reception acknowledgment when receiving a signal from another radio communication apparatus at said receiving slot set by said receiving slot setting means via a beacon,

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length

of the beacon signal, and slot information which indicates a receiving slot position.

Claim 6. (Currently Amended) A radio communication method for performing radio communication between a user's radio communication apparatus and a plurality of radio communication apparatuses, the method comprising the steps of:

setting a frame period of predetermined time through a radio communication apparatus;

preparing a slot of predetermined time unit during the frame period set in said setting step;

setting at least one receiving slot through each of said radio communication apparatuses; ~~and~~

notifying information of said receiving slot set in the setting step via a beacon signal; and

~~increasing the receiving slots~~ adding an additional receiving slot in the user's radio communication apparatus, when there is reception at said receiving slot set in said setting step,

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length of the beacon signal, and slot information which indicates a receiving slot position.

Claim 7. (Currently Amended) A radio communication method for performing radio communication between a user's radio communication apparatus and a plurality of radio communication apparatuses, the method comprising the steps of:

setting a frame period of predetermined time through a radio communication apparatus;

collecting a beacon from another adjacent radio communication apparatus through a receiving operation performed throughout said frame period set in said setting step;

storing receiving slot information of said other adjacent radio communication apparatus from said beacon; and

increasing receiving slots of the user's radio communication apparatus at a timing that does not coincide with said receiving slots stored by said storing step,

said beacon having identifying information which identifies the radio communication apparatus which transmitted the beacon, length information which indicates a length of the beacon, and slot information which indicates a receiving slot position.

Claim 8. (Currently Amended) A radio communication method for performing radio communication between a user's radio communication apparatus and a plurality of radio communication apparatuses, the method comprising the steps of:

setting the frame period of predetermined time through a radio communication apparatus;

preparing a slot of predetermined time unit during the frame period set in said setting step;

setting a plurality of receiving slots for data reception through each of said radio communication apparatuses; ~~and~~

notifying information of said receiving slot set in the setting step via a beacon signal;

decreasing receiving slots of the user's radio communication apparatus to a minimum of one, when there is no reception by said receiving slots set in said setting step,

said beacon signal having identifying information which identifies the radio communication apparatus which transmitted the beacon signal, length information which indicates a length of the beacon signal, and slot information which indicates a receiving slot position.

Claim 9. (Currently Amended) A radio communication method for performing radio communication between a plurality of radio communication apparatuses, the method comprising the steps of:

setting a frame period of predetermined time through a radio communication apparatus;

collecting a beacon from another adjacent radio communication apparatus through a receiving operation performed throughout said frame period set in said setting step;

storing receiving slot information of said another adjacent radio communication apparatus from said beacon;

receiving a beacon signal from a radio communication apparatus when information is transmitted by a receiving slot of said radio communication apparatus; and

transmitting information via another receiving slot, when a change occurs in an allocation of a receiving slot,

said beacon having identifying information which identifies the radio communication apparatus which transmitted the beacon, length information which indicates a length of the beacon, and slot information which indicates a receiving slot position.

Claim 10. (Currently Amended) A radio communication method for performing radio communication between a plurality of radio communication apparatuses, the method comprising the steps of:

setting a frame period of predetermined time through a radio communication apparatus;

preparing a slot of predetermined time unit during the frame period set in said setting step;

setting at least one receiving slot through each of said plurality of radio communication apparatuses;

notifying a position of said receiving slot set in said setting step via a beacon; and

notifying reception acknowledgment, when receiving a signal from another radio communication apparatus,

said beacon having identifying information which identifies the radio communication apparatus which transmitted the beacon, length information which indicates a length of the beacon, and slot information which indicates a receiving slot position.

Claim 11. (Canceled)

Claim 12. (Canceled)

Claim 13. (Canceled)

Claim 14. (Canceled)